

IN THE CLAIMS

1. (Currently amended) Device for determining the quality of [[the]] imaging of printing plates, comprising ~~with, in particular,~~ an optoelectronic sensor for detecting a reference mark (wedge or block), which is arranged on the printing plate within or outside of a printing area and which has different reference fields, as well as [[with]] an evaluation device for evaluating measured values detected by the sensor, ~~characterized in that~~ the sensor is designed for detecting at least two reference marks arranged on the printing plate, wherein the reference marks each have a reference field combination made from at least one tone value reference field and at least one structured reference field, or at least one of the reference marks has at least one tone value reference field and at least an other one of the reference marks has at least one structured reference field.
2. (Currently amended) Device according to claim 1, ~~characterized in that~~ wherein the two or more reference marks are identical in terms of the reference fields.
3. (Currently amended) Device according to claim 1, ~~characterized in that~~ wherein the two or more reference marks are different in terms of the reference fields.
4. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 3,~~ ~~characterized in that~~ two of the reference marks are provided, which are spaced apart from each other in a direction of advance or processing of a printing plate processing device producing the plate imaging and [[which]] are ~~preferably~~ arranged on at least approximately diagonally opposite areas of the printing plate.

5. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 4,~~
~~characterized in that~~ the sensor has a number of detectors corresponding to a
number of the reference marks of the printing plate.

6. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 5,~~
~~characterized in that~~ the evaluation device ~~is designed for~~ evaluates combinations of
measured values from individual ones of the reference fields that are preset or that
can be preset from one or more of the reference marks and [[that]] the evaluation
device ~~preferably~~ has a diagnosis system for diagnosing possible causes of errors
depending on the measured values or the combination of measured values.

7. (Currently amended) Device according to claim 6, wherein ~~one of claims 1 to 6,~~
~~characterized in that~~ the evaluation device has a display or a similar output unit for
displaying the measured values or analysis or diagnosis data determined ~~especially~~
~~by the output unit~~ with reference to the measured values.

8. (Currently amended) Device according to claim 7, wherein ~~one of claims 1 to 7,~~
~~characterized in that~~ the evaluation device has a data memory for the determined
measured values and/or the analysis data determined from the values.

9. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 8,~~
~~characterized in that~~ the evaluation device has a desired value memory for different
printing technologies and that an input device is provided for selecting and setting
[[the]] desired values to be used by the evaluation device.

10. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 9,~~
~~characterized in that~~ the device is integrated into a printing plate processing device.

11. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 10,~~
~~characterized in that~~ the evaluation device has a signal output connected to the
printing plate processing device for stopping the printing plate processing device.

12. (Currently amended) Device according to claim 1, wherein ~~one of claims 1 to 11,~~
~~characterized in that~~ the structured reference fields have regular, irregular,
symmetric, and/or ~~especially~~ asymmetric figure patterns.

13. (Currently amended) Device according to claim 1, further comprising ~~one of~~
~~claims 1 to 12, characterized in that~~ it has at least one additional optoelectronic
sensor for detecting at least one identification mark, which is arranged on the
printing plate and which is provided ~~preferably~~ in plain text or in coded form,
~~especially as a barcode, and/or preferably~~ the optoelectronic sensor or sensors
~~provided in a device according to one of claims 1 to 12 is designed~~ are adapted for
detecting at least one such identification mark.

14. (Currently amended) Method for determining the quality of [[the]] imaging of
printing plates, ~~in which~~ comprising: optically detecting a reference mark on a
printing plate ~~is detected optically~~ and comparing resulting measured values ~~are~~
~~compared~~ with desired values, ~~characterized in that~~ the measured values are
detected from at least two of the reference marks with at least one tone value field
and at least one structured field and [[that]] absolute measured values of the
reference marks are stored and compared with desired values stored in an

evaluation device.

15. (Currently amended) Method according to claim 14, ~~characterized in that~~ further comprising analyzing the measured values of several printing plates detected one after the other ~~are analyzed~~ in a time-value profile.

16. (Currently amended) Method according to claim 14, further comprising comparing ~~or 15, characterized in that~~ the measured values or combinations of at least two measured values ~~are compared~~ automatically with values from a diagnosis table for determining possible causes of poor quality in the plate imaging of the printing plate.

17. (Currently amended) Method according to claim 14, further comprising outputting ~~one of claims 14 to 16, characterized in that~~ the measured values and/or diagnosis data determined with reference to the measured values ~~is output~~ on an output unit.

18. (Currently amended) Method according to claim 14, wherein ~~one of claims 14 to 17, characterized in that~~ information from edge areas of adjacent reference fields and/or from the edges of the reference fields is also used for determining a quality of the plate imaging by the printing plates.

19. (Currently amended) Method according to claim 14, wherein the device includes an optoelectronic sensor for detecting a reference mark (wedge or block), which is arranged on the printing plate within or outside of a printing area and which has different reference fields, as well as an evaluation device for evaluating measured

values detected by the sensor, the sensor is designed for detecting at least two reference marks arranged on the printing plate, wherein the reference marks each have a reference field combination made from at least one tone value reference field and at least one structured reference field, or at least one of the reference marks has at least one tone value reference field and at least an other one of the reference marks has at least one structured reference field ~~one of claims 14 to 18, characterized in that a device according to one of claims 1 to 13 is used.~~

20. (Currently amended) Reference mark [[with]] comprising different reference fields for determining a quality of imaging of printing plates, ~~characterized in that the reference mark has~~ including a reference field combination made from at least one tone value field and at least one structured field.

21. (Currently amended) Reference mark according to claim 20, wherein ~~characterized in that~~ edge regions of individual ones of the reference fields and/or transition regions of adjacent ones of the reference fields form additional auxiliary reference fields.

22. (Currently amended) Reference mark according to claim 20, wherein ~~or 21, characterized in that~~ the reference mark has multiple, ~~preferably twelve,~~ reference fields arranged as a matrix.

23. (Currently amended) Reference mark according to claim 20, wherein ~~one of claims 20 to 22, characterized in that~~ the reference mark has a combination of structured reference fields with regular, irregular, symmetric, and/or ~~especially~~ asymmetric figure patterns.

24. (Currently amended) Reference mark according to claim 20, wherein one of claims 20 to 23, characterized in that the reference mark has a width of approximately 5 mm to 7 mm and a height of approximately 4 mm to 5 mm.

25. (Currently amended) Reference mark according to claim 20, wherein one of claims 20 to 24, characterized in that the reference mark has an identification mark for unique identification of ~~[[the]]~~ a corresponding printing plate or ~~[[that]]~~ an identification mark is allocated to the reference mark.

26. (Currently amended) Reference mark according to claim 20, wherein one of claims 20 to 25, characterized in that the identification mark is a plain text label or a coded label, ~~preferably a barcode.~~

27. (Currently amended) Printing plate with at least two reference marks, comprising:

a plate and imaging located thereon; and
at least two reference marks arranged on the printing plate, wherein the reference marks each have a reference field combination made from at least one tone value reference field and at least one structured reference field, or at least one of the reference marks has at least one tone value reference field and at least another one of the reference marks has at least one structured reference field.